Assignment 6

Given Date:23.7.24 ,submission date:24.7.24

1.Write a Java program to calculate the final grade of a student based on their scores in assignments, midterm, and final exam.

Variables: String studentName, int assignmentScore, int midtermScore, int finalExamScore, String finalGrade

Test case

// Input

studentName = "Alice";

assignmentScore = 85;

midtermScore = 78;

finalExamScore = 92;

// Expected Output: Alice's final grade is B.

2. Write a Java program to calculate the mileage of a car given the distance traveled and fuel consumed.

Variables: String carModel, double distanceTraveled, double fuelConsumed, double mileage

Test Case:

// Input

carModel = "Toyota Camry";

distanceTraveled = 300;

fuelConsumed = 15;

// Expected Output: The mileage of Toyota Camry is 20.0 miles per gallon.

```java
public class FinalGrade {
    public static void main(String[] args) {
        String studentName = "Alice";
        int assignmentScore = 85;
        int midtermScore = 78;
        int finalExamScore = 92;
```

```java
        int totalScore = assignmentScore + midtermScore + finalExamScore;

        double averageScore = totalScore / 3.0;


        String finalGrade;

        if (averageScore >= 90) {

            finalGrade = "A";

        } else if (averageScore >= 80) {

            finalGrade = "B";

        } else if (averageScore >= 70) {

            finalGrade = "C";

        } else if (averageScore >= 60) {

            finalGrade = "D";

        } else {

            finalGrade = "F";

        }


        System.out.println(studentName + "'s final grade is " + finalGrade + ".");

    }

}
```

```
1  Alice's final grade is B.
```

3. Write a Java program to calculate the fine for overdue books in a library. The fine is calculated

based on the number of days overdue.

Variables: String bookTitle, int daysOverdue, double finePerDay, double totalFine

Test Case:

// Input

bookTitle = "Harry Potter";

daysOverdue = 5;

finePerDay = 0.50;

// Expected Output: The fine for Harry Potter is $2.50.

```java
public class MileageCalculator {

    public static void main(String[] args) {

        String carModel = "Toyota Camry";

        double distanceTraveled = 300;

        double fuelConsumed = 15;


        double mileage = distanceTraveled / fuelConsumed;


        System.out.println("The mileage of " + carModel + " is " + mileage + " miles per gallon.");

    }

}
```

```
1  The mileage of Toyota Camry is 20.0 miles per gallon.
```